

CLAIM REJECTIONS - 35 U.S.C. §102(b)

Claims 1,2 and 4-6 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 4,685,198 to Kawakita, et al (hereinafter, Kawakita).

In all embodiments of Kawakita, the deep region oxide of an isolation structure is connected to the deep regions of adjacent isolation structures, so that one continuous deep region oxide layer **42** (Figure 2j) is formed. In effect, the deep region oxide layer is connected to an array of shallow regions **48** (Figure 2i). Deep region oxides that were separated from each other were a problem in prior art (column 4, lines 4-5). This was a problem solved by the Kawakita isolation structure (column 4, lines 15-16). Kawakita teaches connecting the deep region oxides into a single continuous layer (column 3, lines 61-63), and specifically teaches away from non-continuous deep regions of oxide.

In distinct contrast to the prior art, the deep region oxide of the present invention is not in contact with other deep regions, nor does it form a continuous deep region layer (Figure 3). This novel feature specifically goes against the teachings of Kawakita. Each deep region oxide of the present invention is connected to only one single shallow region (Figure 3) – not an array of shallow regions as taught by Kawakita. This novel feature can be found in claims 1 and 5. Claims 1 and 5 each cite “a deep region” with “a shallow region”, meaning one deep region and one shallow region per isolation structure.

Furthermore, while the Kawakita isolation structure is positioned amongst and underneath the devices (Figure 2j), the present invention is positioned between the devices. This novel feature of the present invention can be found in both claims 1 and 5, which recite “an isolation region formed within the substrate between the first device and the second device” (emphasis added). Claims 1 and 5 are believed to be allowable based on the novel features cited within. Applicants respectfully submit that claims 1 and 5 are patentably distinct over the prior art.

Dependent claim 2 is believed to be allowable based on the allowability of claim 1. Dependent claim 4 is believed to be allowable based on the allowability of claim 1. Dependent claim 6 is believed to be allowable based on the allowability of claim 5.

In summary, the claims are distinct and patentable over Kawakita, due to the above-mentioned novel features. The rejection under 35 U.S.C. §102(b) is believed to be